

# National Drought Management Authority

MERU COUNTY

DROUGHT EARLY WARNING BULLETIN FOR JANUARY 2020



A Vision 2030 Flagship Project



## JANUARY 2020 EW PHASE



### Drought Situation & EW Phase Classification

#### Biophysical Indicators

**Rainfall:** During the month under review the County experienced near normal rainfall across all the livelihood zones. The rains were unevenly distributed in terms of space and time.

**Vegetation condition:** above normal greenness condition was recorded across all livelihood zones. Pasture and browse condition was good across all the livelihood zones.

#### Socio Economic Indicators (Impact Indicators)

**Production Indicators:** rain- fed crops were in harvesting stage. Farmers were also preparing land for the long rains. Livestock body condition was good for all species. There were confirmed cases of FMD and SLD livestock diseases in Tigania East however, the condition was contained through vaccination. Milk production per HH per day remained stable.

**Access Indicators:** Return distance to water sources for both households and livestock decreased owing to increased recharge levels. Terms of Trade remained stable.

Milk consumption per HH per day was normal at this time of the year.

**Utilization Indicators:** Milk consumption per HH per day remained stable; the proportion of children at risk of malnutrition remained within the normal range. The household copying strategy index reduced owing to replenished household stocks.

### Early Warning Phase Classification

Livelihood Zone	Phase	Trend
Mixed Farming	Normal	Stable
Agro - Pastoral	Normal	Stable
Rain Fed Cropping	Normal	Stable
<b>County</b>	<b>Normal</b>	Stable
Biophysical Indicators	Value	Normal Range/ Value
Rainfall (% of Normal)	137	80 - 120
VCI-3Month	77.97	35 - 50
Production indicators	Value	Normal
Maize Crop Condition	Good	Good
Livestock Body Condition for cattle	Good	Good
Milk Production per HH/ day	1.8	1-2Litres
Livestock Migration Pattern	Normal	Normal
Access Indicators	Value	Normal
Terms of Trade (ToT)	81.8	91
Milk Consumption per HH/ day	1.2	1.4Litres
Return HHs distance to water sources	3.6	6.5 Km
Water source return distance from grazing areas	4	14.2 Km
Cost of water (20 litres)	2.50	Kshs 3.00 - 5.00
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	17	<20.0
Copying strategy Index( CSI)	6.52	1-5

<ul style="list-style-type: none"> <li>Short rains harvests</li> <li>Increased HH Food Stocks</li> <li>Short dry spell</li> <li>Reduced milk yields</li> <li>Land preparation</li> </ul>	<ul style="list-style-type: none"> <li>Planting/Weeding</li> <li>Long rains</li> <li>High Calving Rate</li> <li>Milk Yields Increase</li> </ul>	<ul style="list-style-type: none"> <li>Long rains harvests</li> <li>Increased HH Food Stocks</li> <li>A long dry spell</li> <li>Land preparation</li> <li>Kidding (Sept)</li> </ul>	<ul style="list-style-type: none"> <li>Short rains</li> <li>Planting/weeding</li> </ul>
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Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
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# 1. CLIMATIC CONDITIONS

## 1.1 RAINFALL PERFORMANCE

- According to WFP-VAM, near normal rainfall was received across the livelihood zones during the month under review. The County experienced near normal rainfall in the first dekad of the month while above normal rainfall was received during the second dekad of the month.

## 1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

- The County received an average of 14.7 mm of rainfall in the Month of January compared to normal average amount of 10.8 mm for the same period.
- The rainfall was unevenly distributed in terms of time and space.

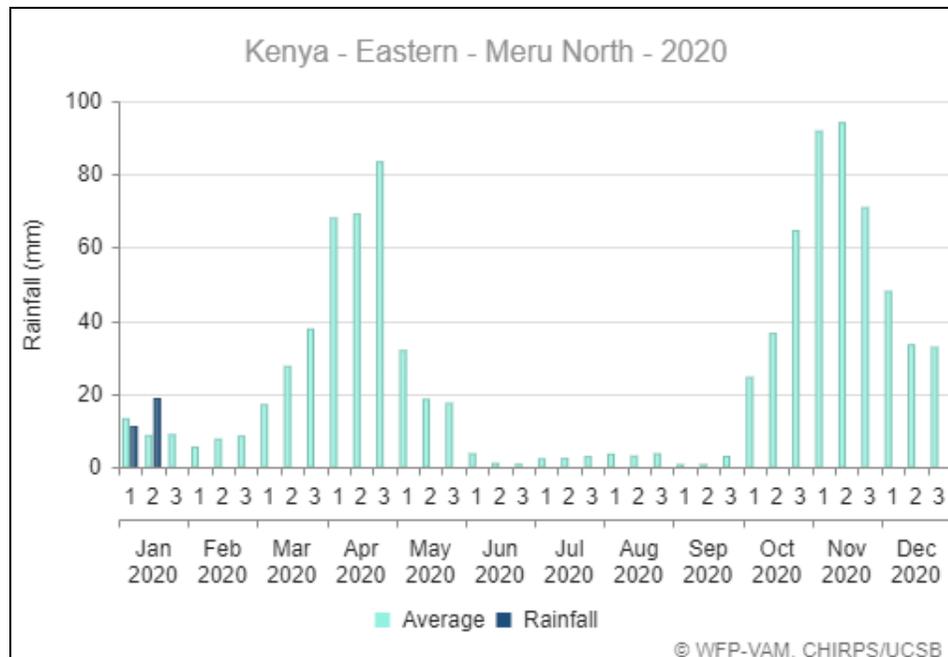


Figure 1: Rainfall estimates in Meru North

## 2. IMPACTS ON VEGETATION AND WATER

### 2.1 VEGETATION CONDITION

#### 2.1.1 Vegetation Condition Index (VCI)

- The County vegetation condition in the month under review was above normal as depicted by a vegetation condition index (VCI).
- All Sub Counties depicted vegetation greenness above normal.
- The combined 3-month Vegetation Condition Index (VCI) increased from 74.07 recorded in the month of December to 77.97 in the month of review.
- The 3-monthly vegetation condition index for Meru Igembe Central was at 85.45, Igembe North at 86.14, Tingania East at 77.95 while that of Tingania West was at 76.5.

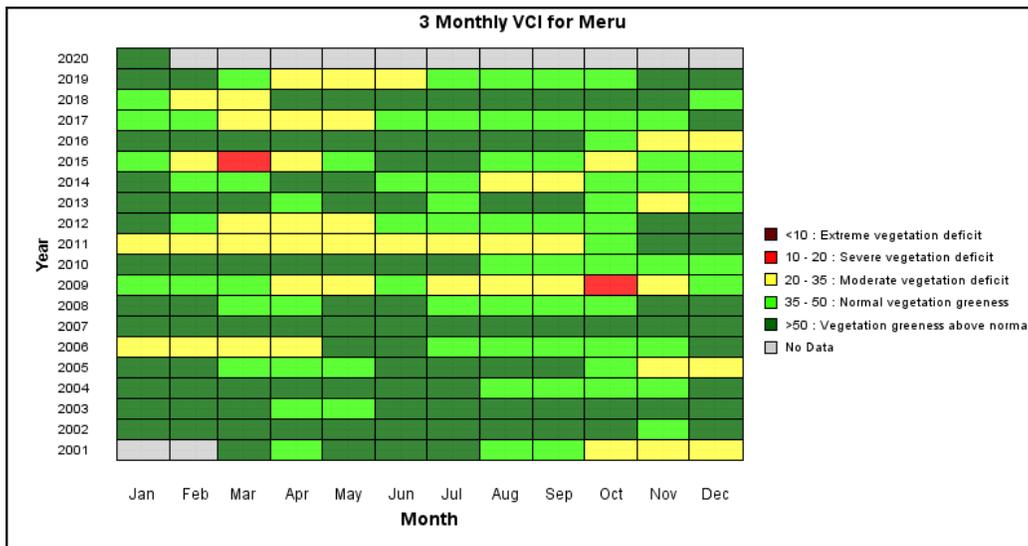


Figure 2: Three-monthly VCI for Meru County [Source: MODIS Data]

### 2.1.2 Pasture Condition

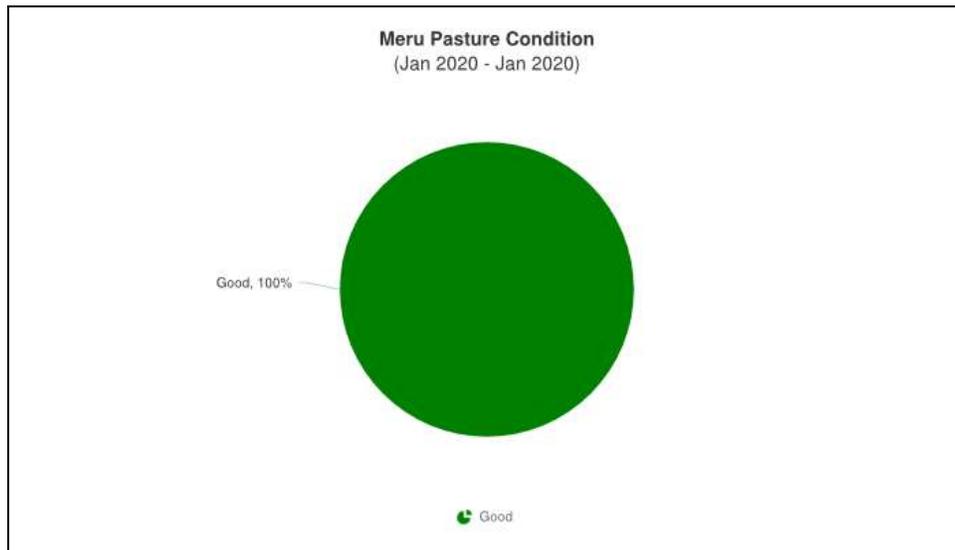


Figure 3: Pasture condition in Meru County

- Based on community interviews conducted, the pasture condition was good across all the livelihood zones. This is attributed to high regeneration levels because of the ongoing short rains.
- The pasture condition is normal at this time of the year.

### 2.1.3 Browse

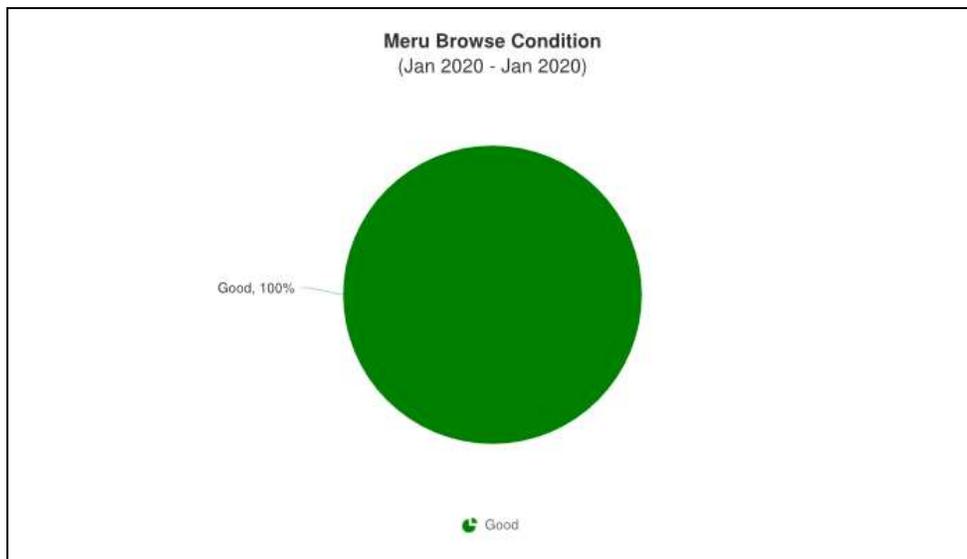


Figure 4: Browse condition in Meru County

- The browse condition was good across all the livelihood zones.
- The browse situation has improved tremendously as compared to last month which is attributed to fast regeneration owing to the ongoing short rains.
- The browse condition is normal at this time of the year.

## 2.2 WATER RESOURCE

### 2.2.1 Sources

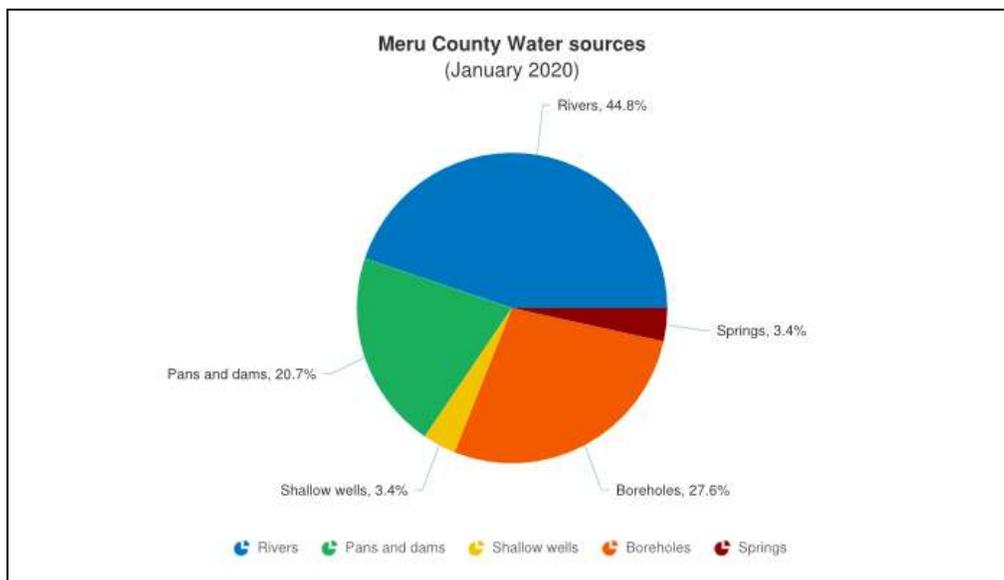
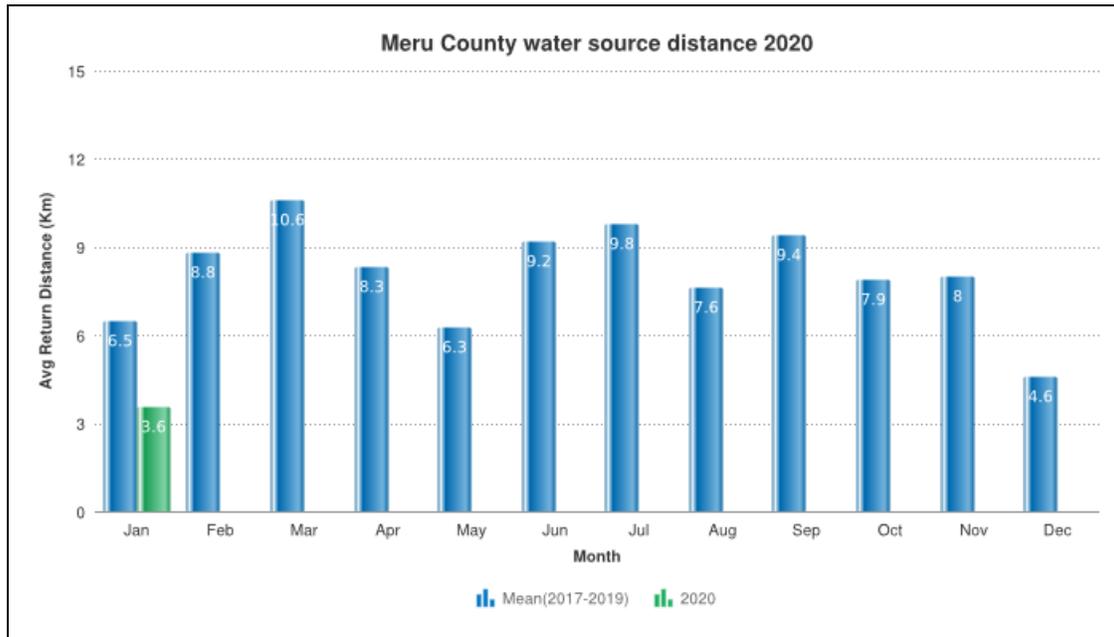


Figure 5: Water sources for Meru County

- The three main sources of water within the period under review were; rivers, boreholes and pans & dams. Other sources included; springs, shallow wells and roof catchment which was also relied upon as a major water source during the review period.

- Most of the dams and pans have recharged to 100 percent owing to the ongoing short rains.
- The County government during the year 2019 drilled additional boreholes in most of the wards which has greatly contributed to water availability.
- The quality of water in boreholes was good while that of rivers and other surface sources was poor due to ground rain water run-off.

## 2.2.2 Household Access to Water



*Figure 6: Household average distances to water sources*

- The average return distances to household water sources decreased to 3.6km from 4.5km recorded the previous month.
- The decrease was because of increased recharge levels to all water sources, additional drilling of boreholes by the County government and reliance on roof catchment occasioned by the ongoing short rains.
- The average cost of 20 litre jerry can at water kiosks was ranging between Kshs 2.50 to Kshs 3.00 which is normal at this time of the year.
- The current average distance was 45 percent lower Compared to the long term average.
- Based on community interviews conducted, 24.20% of respondents treated water. Out this number 60.9% use boiled water while 39.1 filter water.

### 2.2.3 Livestock Trekking Distance to Water Sources from Grazing Areas

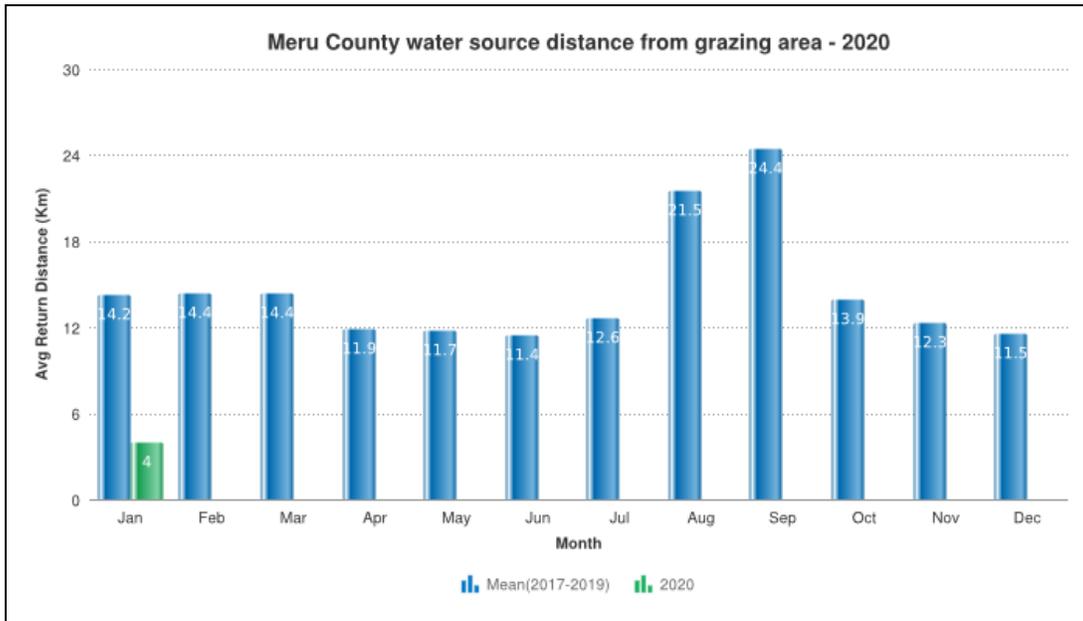


Figure 7: Livestock average return distances to water sources

- The average return distance to water source from grazing areas decreased to 4 km from 5.8km recorded in the previous month.
- The decrease was due to improved pasture and browse condition and increased recharge levels for all water sources owing to the ongoing short rains.
- The watering frequency for livestock in both livelihood zones was on daily basis.
- The current average return distance to water sources was 72 percent shorter compared to long term average at this time of the year.

## 3. PRODUCTION INDICATORS

### 3.1 LIVESTOCK PRODUCTION

#### 3.1.1 Livestock Body Condition

- Livestock body condition was good for all species across all the livelihood zones
- The livestock body condition is normal at this time of the year.

#### 3.1.2 Livestock Diseases

- There were confirmed cases of FMD and SLD in Tigania East. Vaccination for the diseases is ongoing to contain the situation.
- Routine surveillance measures by the County government continued in the month under review

### 3.1.3 Milk Production

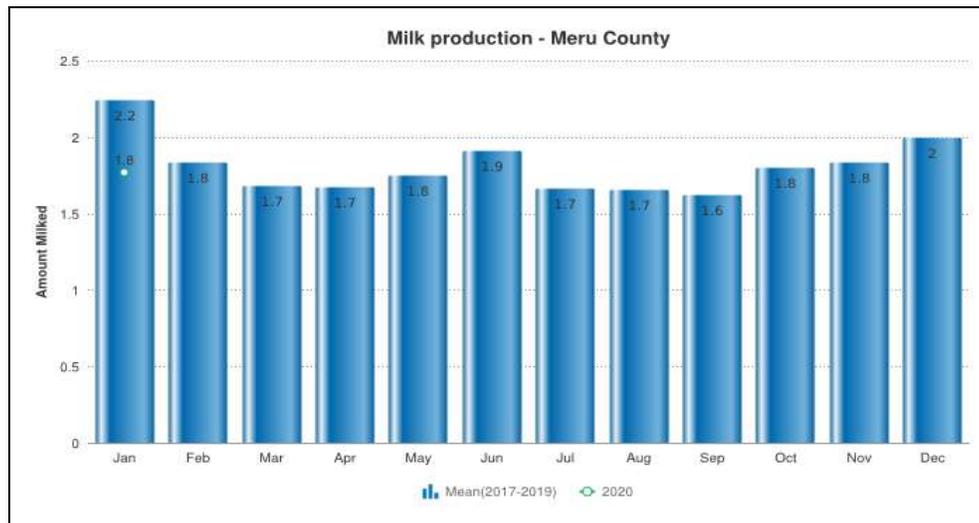


Figure 8: Household milk production in Meru County

- The average daily milk production per household per day remained stable compared to previous month at 1.8 litres. The stability was attributed to availability of water and pasture at relatively shorter distance.
- Milk production was high in Mikinduri Ward where cattle practice zero grazing and are of good breed.
- Average milk price per litre at household level was Ksh 60.00

## 3.2 RAIN-FED CROP PRODUCTION

### 3.2.1 Stage and Condition of food Crops

- Rain fed crops were at harvesting stage across all the livelihood zones. Farmers were also doing land preparation for the long rains.
- Farmers are expecting good harvests from the short rains however, majority of the farmers reported that 40 percent of the legumes were destroyed by the heavy rainfall received during the season.

## 4.0 MARKET PERFORMANCE

### 4.1 LIVESTOCK MARKETING

#### 4.1.1 Cattle Prices

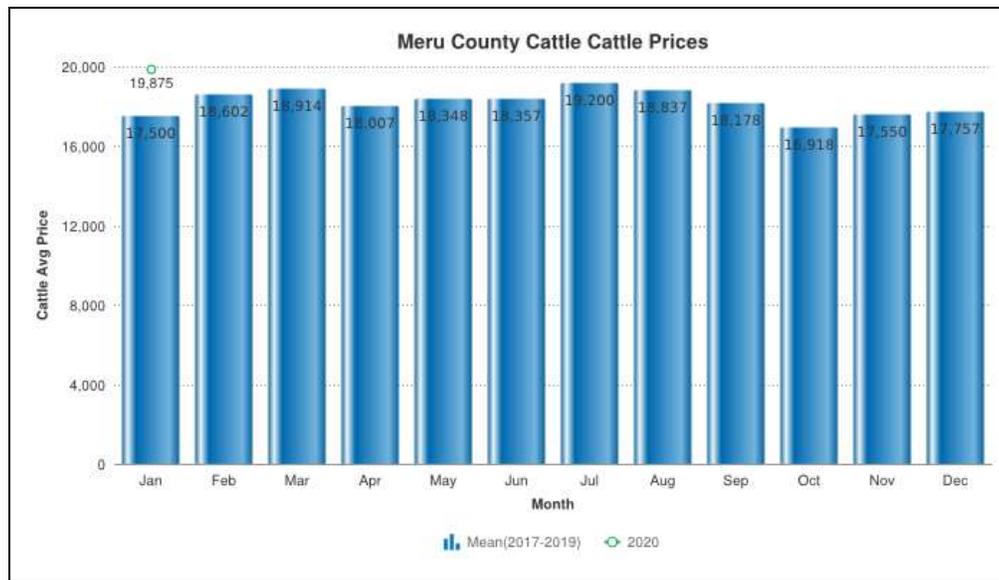


Figure 9: Average Market prices for cattle in Meru County

- The average market price of a three year old bull remained stable at Kshs 17,500 compared to the previous month.
- The stability was attributed to stable supply and demand at the market.
- The average market price was normal at this time of the year.

#### 4.1.2 Goat Prices

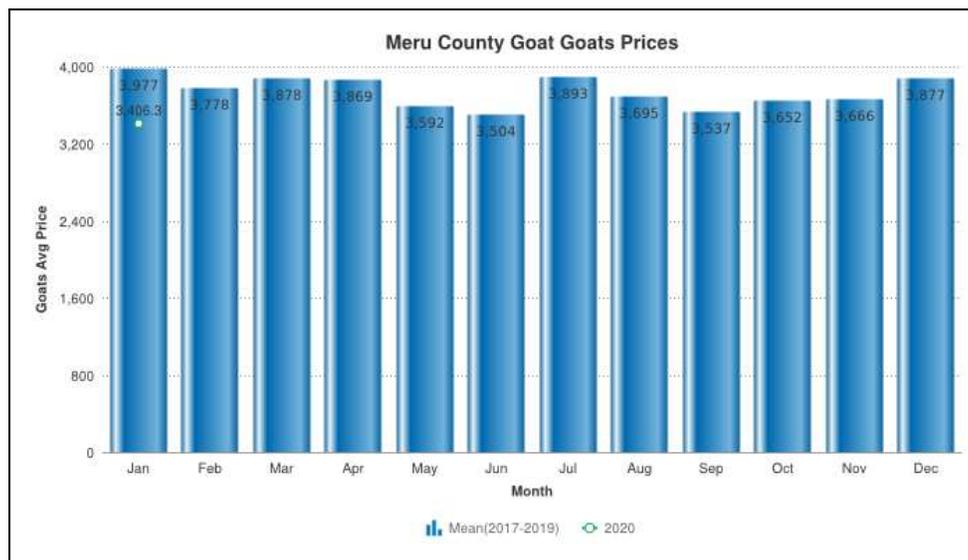


Figure 10: Average market prices for goats in Meru County

- The average market price of a two year goat was remained stable at Kshs 3,466 compared to previous month.
- The stability was attributed to stable supply and demand at the market.

- The current average market price was 15 percent lower than the long term average at this time of the year.

## 4.2 CROP PRICES

### 4.2.1 Maize



Figure 11: Average market prices for maize in Meru County

- The average market price of a kilo of maize remained stably high at Ksh.42 compared to previous month.
- The high prices are due to depleted household stock and high demand in the market.
- The price of maize is expected to decrease in the coming weeks due to ongoing harvest.
- Compared to the long term average, the current price was 19.7 percent above normal.

### 4.2.2 Beans Prices



Figure 12: Average market prices for beans in Meru County

- Average market price of a kilo of beans significantly decreased from Kshs 92.2 recorded in the previous moth to Ksh. 60.4 in the moth under review.
- The decrease is attributed to harvests realised from the short rains replenishing household food stocks
- The average market price for beans was normal at this time of the year.

#### 4.2 INCOME

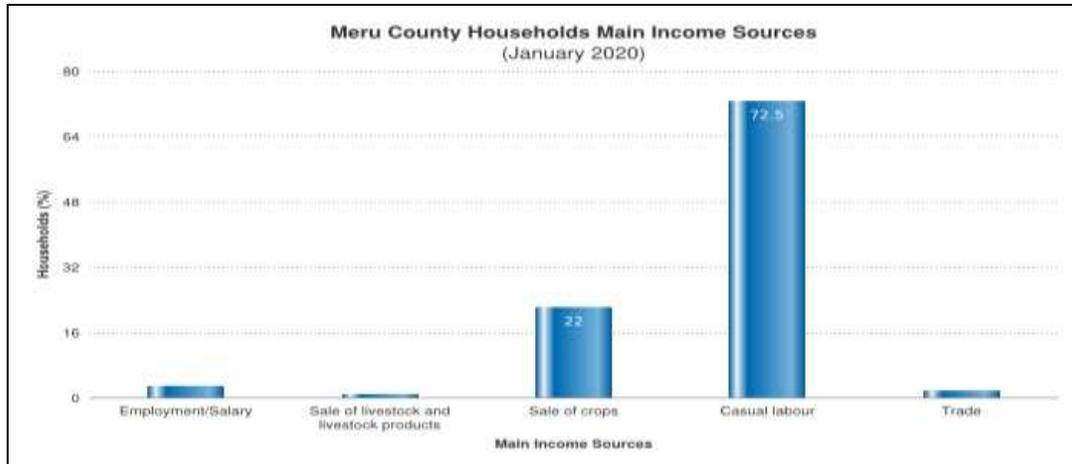


Figure 13: Sources of household income in Meru County

- Households main source of income were; casual labour, sale of crops, employment/salary and trade.
- Households across the Rain fed and Mixed Farming livelihood zones relied on sale of 'Miraa' for household income.
- Casual labour opportunities were available in the Miraa plantations, and increased agricultural activity related to harvesting.

#### 4.4 TERMS OF TRADE

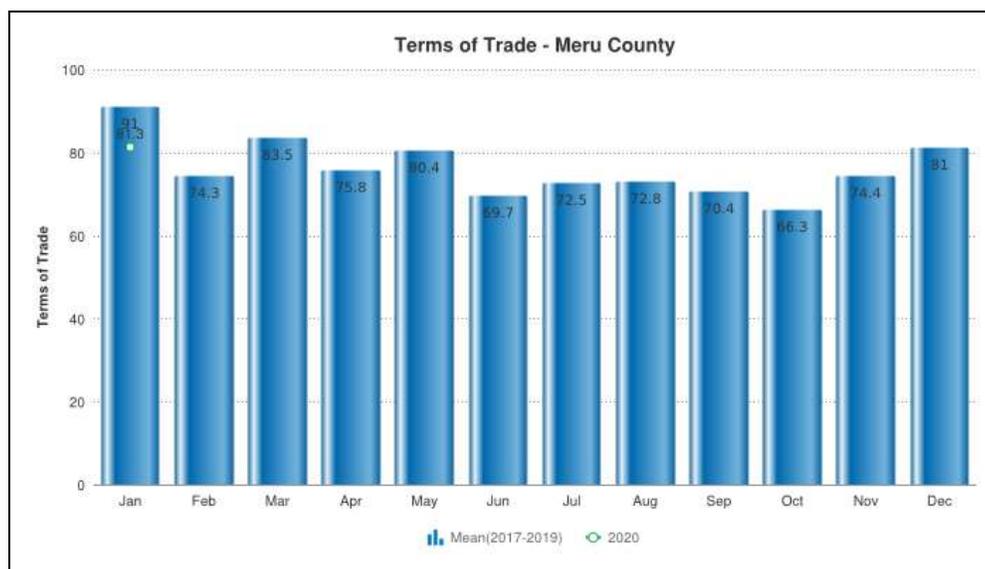


Figure 14: Terms of trade in Meru County

- The Terms of trade slightly increased to 82 kilograms of maize realised from a sale of goat compared to 78 kilograms recorded previous month.
- The increase is attributed to stability of goat price as maize price stably decreased.
- The Terms of Trade was 10 percent lower than the long term average.

## 5. FOOD CONSUMPTION AND NUTRITION STATUS

### 5.1 MILK CONSUMPTION

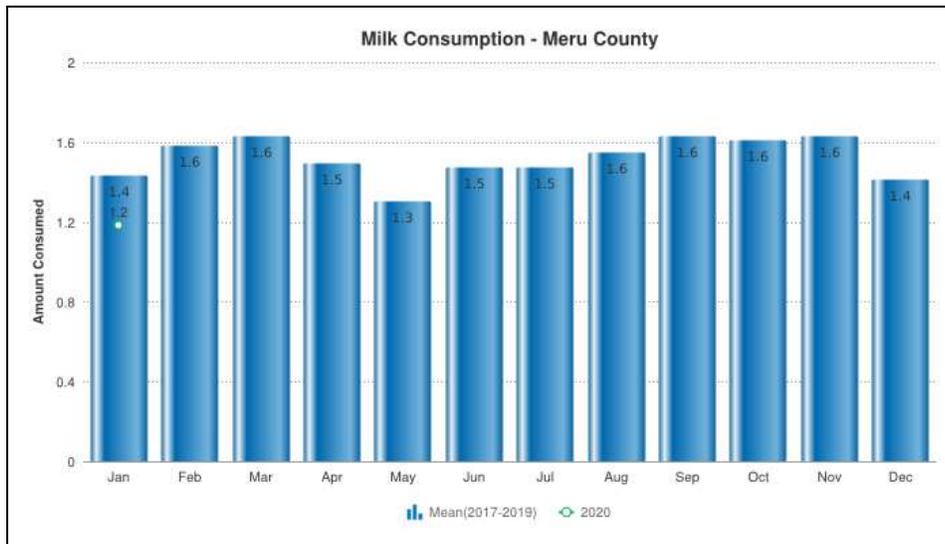


Figure 15: Average household milk consumption (l/hh/day)

- Milk consumption per household per day remained stable at 1.2 litres compared to previous month.
- The stability is attributed to good body condition occasioned by availability of pasture and reduced distances to water sources.
- The quantity of milk consumed was low in Agro pastoral livelihood zone as compared to other livelihood zone.
- The milk consumption is normal at this time of the year.

### 5.2 FOOD CONSUMPTION SCORE

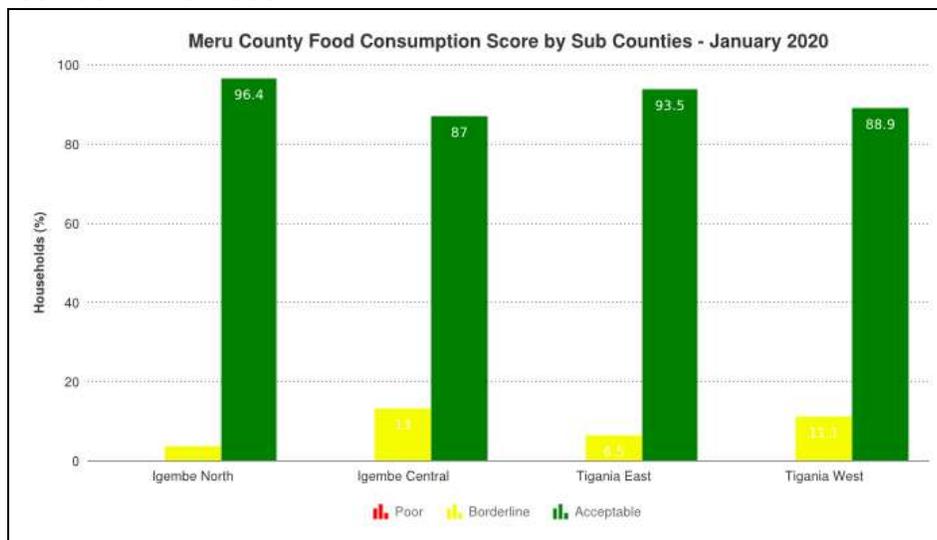


Figure 16: Household food consumption score

- Households interviewed showed that 92 percent were in the acceptable food consumption score category indicating that they were consuming an acceptable diet in terms of meal frequency, dietary diversity, nutritional value and amount. The rest of the households, 2 percent, were under borderline consumption score category. There were no household reported to be in poor food consumption score.
- The interviewed households on average consumed; grains and pulses for seven days, vegetables for an average of five days and fruits for four days. The households consumed milk for an average of four days while meat consumption was minimal.

### 5.3 HEALTH AND NUTRITION STATUS

#### 5.3.1 Nutrition Status of Children

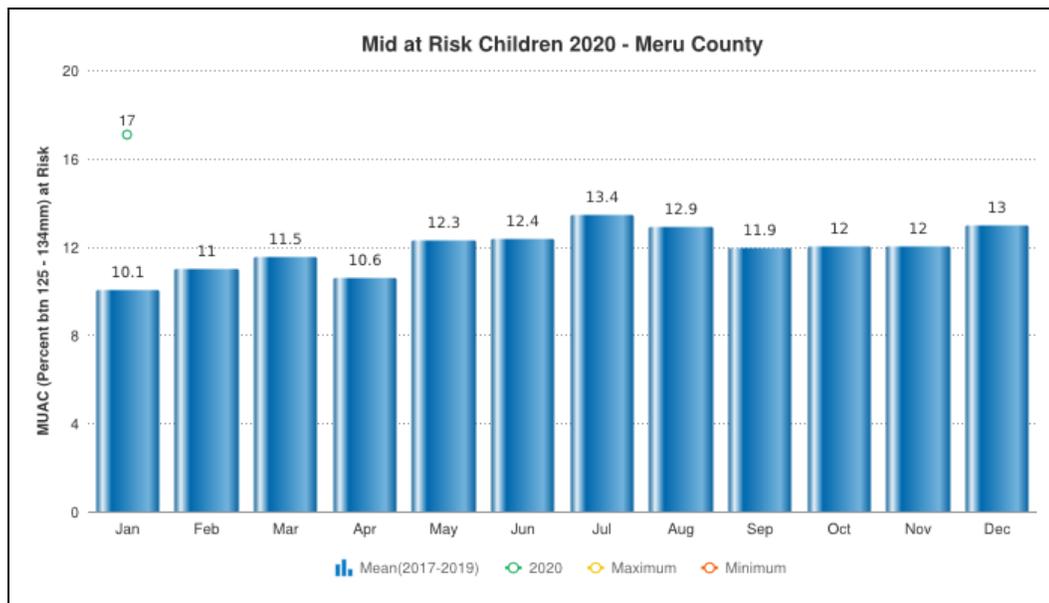


Figure 17: Proportion of Children under five at risk of malnutrition in Meru County

- The proportion of the sampled children below five years at risk of malnutrition decreased from 18.3 percent recorded previous month to 17.1 percent recorded in the month under review.
- The decrease is attributed to realised harvests from the short rains.
- The proportion of children at risk of malnutrition in the month under review was higher compared to the long-term average for the same period.

#### 5.3.2 Human Health

- No disease outbreaks reported in both livelihood zones during the month under review.
- County Department of Public Health and Sanitation continue with routine disease surveillance

## 5.4 Coping Strategy Index

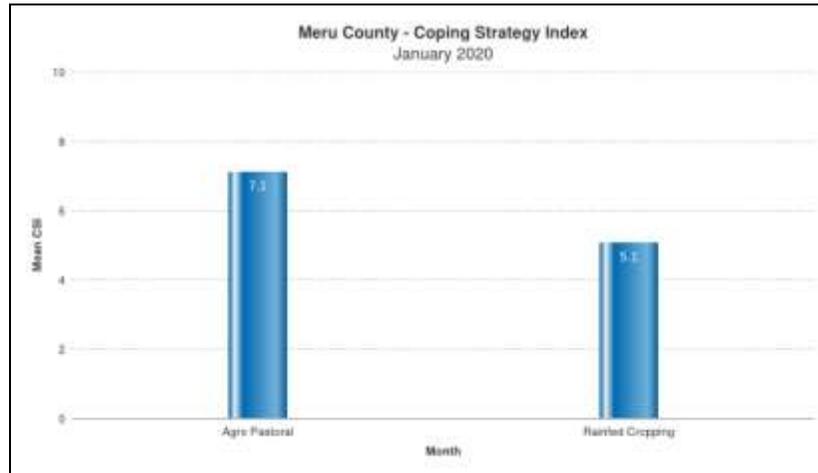


Figure 18: Household coping in Meru North Sub counties.

- The mean coping strategy index significantly decreased from 14.03 recorded previous month to 6.52 in the month under review.
- The significant decrease was attributed harvests realised from the short rains replenishing household stocks.
- The coping strategy index for the month under review was normal at similar period of the year.

## 6.0 EMERGING ISSUES

- Grazing areas in the agro pastoral livelihood zones were invaded by desert locust however, the condition was contained. Locust surveillance is ongoing to monitor the situation.

### 6.1 Insecurity/ Conflict/ Human Displacement

- Cattle rustling were witnessed in Agro pastoral zone between Meru and Borana communities.

### 6.2 FOOD SECURITY PROGNOSIS

- Household stocks continue to be replenished from the short rains harvest of pulses and maize which will likely improve food security at household level.
- Quality and quantity of pasture and browse is expected to improve further.
- Livestock production and productivity is expected to increase in the next three months due to availability pasture and water at shorter distances with time.
- The terms of trade are also expected to remain favorable for the next three months occasioned stable market prices of livestock and cereals.

- The proportion of children at risk of malnutrition will likely reduce due to replenishment of household stocks from short rains harvest and favorable terms of trade.

### **6.3 On-going interventions**

#### **Agriculture and Livestock Sector**

- Livestock vaccination all in Igembe South, Igembe North, Igembe Central, Tigania West, Tigania East and Tigania Central.
- Routine livestock diseases surveillance
- Locust surveillance is ongoing

#### **Public Health and Nutrition Sector**

- Routine Disease Surveillance
- Routine screening and management of malnutrition at health facility level
- Routine Vitamin A and Zinc Supplementation and deworming at health facility level
- Iron Folate Supplementation among Pregnant Women
- Community MUAC monitoring for the acute and moderate malnutrition

#### **Peace and section**

- Peace meetings between communities and security teams where conflicts were witnessed.
- Recovery mission by the chiefs and community are done to recover stolen livestock.

## **7. SECTOR RECOMMENDATIONS**

#### **Agriculture and Livestock Sector**

- Farmers to be trained on crop rotation to break the cycle of pest and diseases.
- Provision of relief seed (DTS)
- Caterpillars and surveillance

#### **Water and Irrigation Sector**

- Stand-by genset for Ndumuru borehole under procurement process.
- Extension of water pipes – Mariara Borehole under procurement process.
- Provision of water storage tanks to institutions – the procurement process is underway.

#### **Public Health and Nutrition Sector**

- Provision of water treatments compounds at household level.
- Provision of (adequate) vaccines in health facilities.